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Z/037/61/000/001/001/007
E024/E335

Speed of Evaporation and Coefficient of Self-diffusion
Determined by the Method of Isotope Interchange

in the form of the coordinates:

$$\left[\log \frac{I_2(t)}{I_0}, \log t \right] .$$

Experimental results of measurements on the evaporation of silver from a silver-copper alloy will be published later. Acknowledgments are expressed to Doctor of Natural Sciences M. Cernohorský. There are 2 figures and 4 Soviet references.

ASSOCIATION: Laboratoř pro studium vlastností kovů,
ČSAV, Brno (Laboratory for the Study of the
Properties of Metals, ČSAV, Brno)

SUBMITTED: March 15, 1960

Card 8/8

1522-93

ENP(q)/BDS AFFTC/ASD Pad JD/HW

Z/0065/63/000/002/0196/0218

ACCESSION NR: AP3002910

AUTHOR: Kucera, Jaroslav

74
68

TITLE: Diffusion of iron and chromium in multicomponent alloys based on Ni-Cr

SOURCE: Kovove materialy, no. 2, 1963, 196-218

27 27

TOPIC TAGS: heat-resisting alloy, Cr solid state diffusion, diffusion control, radioisotope, activation energy, diffusion

ABSTRACT: Czechoslovak heat resisting alloy VZU 60 (0.05%C, 0.15%Mn, 0.3%Si, 0.8%Al, 16.49%Cr, 66.05%Ni, 10.93%Fe, 1.84%N, 1.75%Co, and 1.3%Ti) and a Soviet alloy EI 437 (0.08%C, 0.4%Mn, 1.0%Si, 0.8%Al, 20.0%Cr, 71.32%Ni, 4.0%Fe and 2.4%Ti) were investigated for diffusion by tracing radioisotopes 55Fe, 59Fe, and 51Cr and electrolytically removing metal layers. VZU 60 was investigated for iron diffusion in the range of 1002-1275°C and Cr diffusion in the range 998-1306°C. Results showed agreement with Fisher diffusion model in the range 1100-1150°C and 1055-1144°C respectively; no effect of structure on diffusion at 1150-1257°C and 1155-1255°C respectively; and a volume diffusion coefficient D_v

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ACCESSION NR: AP3002910

6

equals $1.25 \cdot \exp(-67,500/RT)$ and $4,620 \exp(-89,300/RT)$ where R is the gas constant in cal.mol⁻¹. Results of EI 437 investigation for Fe (1049-1348C) and Cr (1106-1306C) diffusion showed no effect of structure on diffusion at 1049-1249 and 1106-1255, respectively; D_v equals $13.3 \exp(-72,000/RT)$ and $9,530 \exp(-88,600/RT)$; and probable influence of grain boundaries melting on diffusion at 1298 and 1306°C, respectively. Diffusion coefficient, measured at 1306°C proved 2.7 times higher than expected. These results allow evaluation of influence of structure on diffusion at low temperatures, calculation of activation energy and constant of diffusion, and show that at very high temperatures the diffusion is probably influenced by grain boundaries melting. "It is my pleasant duty to express my thanks to K. Cihra of the Metal Research Institute for supervising the metallographic work and his valuable help given in connection with my manuscript, and to Dr. Eninger of the Research and Testing Institute of the V. I. Lenin Works at Pilsen for supplying samples of the VZU 60 alloy." Orig. art. has 17 figures, 4 tables, 7 equations.

ASSOCIATION: Ustav vlastnosti kovu CSAV, Brno (Institute for Research on Properties of Metals of the Czechoslovak Academy of Sciences)

SUBMITTED: 00

DATE ACQ: 15 Jul 63

ENCL: 00

SUB CODE: ML

NO REF SOV: 010

OTHER: 016

Card 2/2

KUCERA, Jaroslav

Diffusion of iron and chromium in the alloys based on Ni-Cr.
Jaderna energie 9 no. 12:390 D '63.

1. Ustav vlastnosti kovu, Ceskoslovenska akademie ved, Brno.

KUCERA, Jaroslav

International summer school on solid state physics in Belgium,
1963. Cs cas fys 14 no. 1:75-76 '64.

1. Ustav vlastnosti kovu, Ceskoslovenska akademie ved, Brno.

CZECHOSLOVAKIA

KUCHERA, J.

Institute of Nuclear Research of the Czechoslovak Academy
of Sciences (Institut jadernyx issleovanij, Chexoslovackaja
Akademija nauk), Rez by Prague

Prague, Collection of Czechoslovak Chemical Communications,
No 11, 1963, p 3144

"On the Output of Liacetyl with Aceton-Radiolysis."

DUNDR, J., inz., CSc.; KUCERA, J., inz.

Problems of velocity measurement in industrial furnaces. Strojirenstvi
13 no.7:526-533 JI '63.

1. Ustav pro vyzkum stroju, Ceskoslovenska akademie ved, Praha.

KUCERA, Jaroslav, inz.; NOVAKOVA, Marketa

Use of automatic computers for solving the linear programming tasks. Podnik organizace 16 no.12:562-565 D '62.

1. Technickoeconomicky ustav hutniho prumyslu a rudnych dolu (for Kucera). 2. Vyzkumny ustav matematickych stroju, Ceskoslovenska akademie ved, Praha (for Novakova).

KUCERA, Jaroslav, inz.

"Mechanization of statistical calculation by means of punched card machines" by J. Hybl and others. Reviewed by Jaroslav Kucera. Automatizace:Suppl.:Technicka literatura 6 no.6:n.p. Je '63.

KUCERA, Jaroslav, inz.

Use of linear programming for crushed material mixing control. Hut listy 18 no.11:792-793 N°63.

1. Technickoekonomicky vyzkumny ustav ministerstva hutniho prumyslu a rudnych dolu.

DUNDA, Jiri, inz. CSc., KUCERA, Jaroslav, inz.

Investigation of turbulence in combustion chamber models.
Stroj cas 15 no.2:140-159 '64

1. Ustav pro vyzkum stroju, Ceskoslovenska akademie ved,
Praha.

KUCERA, Jaroslav, inz. CSc.; VOKALEK, Jaroslav, inz.

Outward insulation levels of 110 kv systems during overvoltage.
Energetika Cz 14 no.12:596-599 D '64.

1. Very High Voltage Laboratory of the Institute of Power Engineering,
Bechovice.

L 26046-66 EWA(d)/EWP(t) IJP(c) JD/HW/JG

ACC NR: AP5025475

SOURCE CODE: CZ/0065/65/000/004/0361/0372

AUTHOR: Kucera, Jaroslav--Kuchera, Jaroslav; Million, Borivoj--Million, Borzhivoy

ORG: Institute of Metal Properties, CSAV, Brno (Ustav vlastnosti kovu CSAV) ⁶⁴₆₂

TITLE: Autoradiographic study of the diffusion of iron and chromium in Ni-Cr alloys ¹⁹ ₂₇ ²⁷ ₂₇ ⁸

SOURCE: Kovove materialy, no. 4, 1965, 361-372

TOPIC TAGS: nickel base alloy, radioisotope, iron, heat resistant alloy, alloy, chromium, radiography, crystal structure, grain structure/VZU 60 alloy, EI 437 alloy

ABSTRACT: The radioisotopes Fe⁵⁵, Fe⁵⁹, and Cr⁵¹ were used to study the fusion of Fe and Cr in the heat-resistant Czechoslovak alloy VZU 60 (C 0.05, Mn 0.15, Si 0.3, Al 0.8, Cr 16.49, Ni 66.05, Fe 10.95, W 1.8%, Mo 1.75, and Ti 1.3%) and the Soviet alloy EI 437 (C 0.08, Mn 0.4, Si 1.0, Al 0.8, Cr 20.0, Ni 71.32, Fe 4.0, and Ti 2.4%). In addition to the radiographic observations, the lit-par-lit samples were taken to determine the effect of grain boundaries on the diffusion of Fe in the EI 437 alloy at low temperature and the effect of the dendritic struc-

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L 26046-66

ACC NR: AP5025475

ture of the VZU 60 alloy on the Fe diffusion at temperatures near solidus. The autoradiograms were taken by the contact method on Agfa-Lane X-ray film. The study showed that the regions having a high rate of diffusion were formed near the grain boundaries in the multicomponent alloy at temperatures near solidus. A simple model for expressing the dependence of the concentration of a diffusing trace element $[C(x, t)]$ on the time (t) and the coordinate (x) was offered by assuming that, at the temperature near solidus, the diffusion along the grain boundaries is independent of the diffusion in the grain volume. The equation, which was based on this model, led to results which were in agreement with the experimental data:

$$c(x, t) = \frac{S_1}{S} \frac{c_0}{\sqrt{\pi D_V t}} \exp\left(-\frac{x^2}{4D_V t}\right),$$

where S_1 is the area in which the effect of the grain boundary is not present during diffusion, S is the total area of the sample, C_0 is an initial concentration of the diffusing trace element on the surface of the sample, and D_V is the volumetric diffusion. During the diffusion the dendritic structure had the same effect as the grain boundaries. The effect of the grain boundaries (or that of the dendritic structure) on diffusion was noticeably expressed provided the following condition was present:

$$1 \leq \beta = \frac{\delta \cdot D_g}{2D_g \sqrt{D_V t}},$$

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ACC NR: AP5025475

2

where D_x is the diffusion coefficient in the region of elevated diffusion and δ is the width of this region. The ratio $D_x:D_y$ increased with decreased temperature. Because δ was greater in the VZU 60 alloy than in the alloy EI 437, this condition was present in the VZU 60 alloy at higher temperature than in the alloy EI 437. Orig. art. has: 6 formulas, 6 fig. and 1 table.

SUB CODE: 11,14/ SUBM DATE: 06Jan64/ ORIG-REF: ~~001/~~ OTH-REF: ~~007~~

Card 3/3

L 34664-66

ACC NR: AP6025841

SOURCE CODE: C2/0080/65/000/005/0123/0125

AUTHOR: Kucera, Jaroslav (Engineer)

53
B

ORG: none

TITLE: Application of the small analog computer MEDA for optimizing

SOURCE: Automatizace, no. 5, 1965, 123-125

TOPIC TAGS: alumina, analog computer, computer application, optimization/MEDA analog computer

ABSTRACT: The article describes the process of optimizing the production of alumina, using the MEDA analog computer. Orig. art. has: 1 figure and 2 tables. [JPRS: 32,496]

SUB CODE: 09, 11 / SUBM DATE: none

L 33608-56

ACC NR: AP6025053

SOURCE CODE: CZ/0017/66/055/001/0021/0025

40 B

AUTHOR: Kucera, Jaroslav (Engineer; Candidate of sciences); Vokalek, Jaroslav (Engineer)

ORG: Power Research Institute, Laboratory for Very High Voltage, Bechovice (Vyzkumny ustav energeticky, laborator vvn)

TITLE: Influence of the wave shape of switching surges on the strength of external insulation

SOURCE: Elektrotechnicky obzor, v. 55, no. 1, 1966, 21-25

TOPIC TAGS: electric insulation, electric conduction, switching circuit

ABSTRACT: Measurement results are presented of rod-plate, rod-rod, conductor-tower and conductor-conductor air gaps with distances of 20 to 120 cm, and on 110 kV insulators. These arrangements were investigated with 1.2/50, 50/1200, 50/200, 80/1300 and 500/2000 microsecond waves, 5 kc and 200 cps oscillating waves, and 50 cps alternating voltage. A 50-percent flashover voltage and standard deviation were calculated for each arrangement and voltage. The results of the measurements with switching surges are mutually compared and are evaluated from the viewpoint of insulation strength in the case of alternating and impulse voltage (1.2/50 microsecond). Orig. art. has: 12 figures and 3 tables. [Based on authors' Eng. abstract/ [IPRS: 35,322]

SUB CODE: 09 / SUBM DATE: 13Oct64 / ORID REF: 005 / OTH REF: 004

Card 1/1

UDC: 537.529

0976

0220

L 40864-66

ACC NR: AP6030191

SOURCE CODE: CZ/0017/66/055/004/0182/0189

AUTHOR: Kucera, Jaroslav (Professor; Engineer; Doctor; Doctor of sciences)

ORG: none

56
B

TITLE: Variation of the pole number in asynchronous motors by pole-amplitude modulation

SOURCE: Elektrotechnicky obzor, v. 55, no. 4, 1966, 182-189

TOPIC TAGS: amplitude modulation, electric motor, magnetic induction

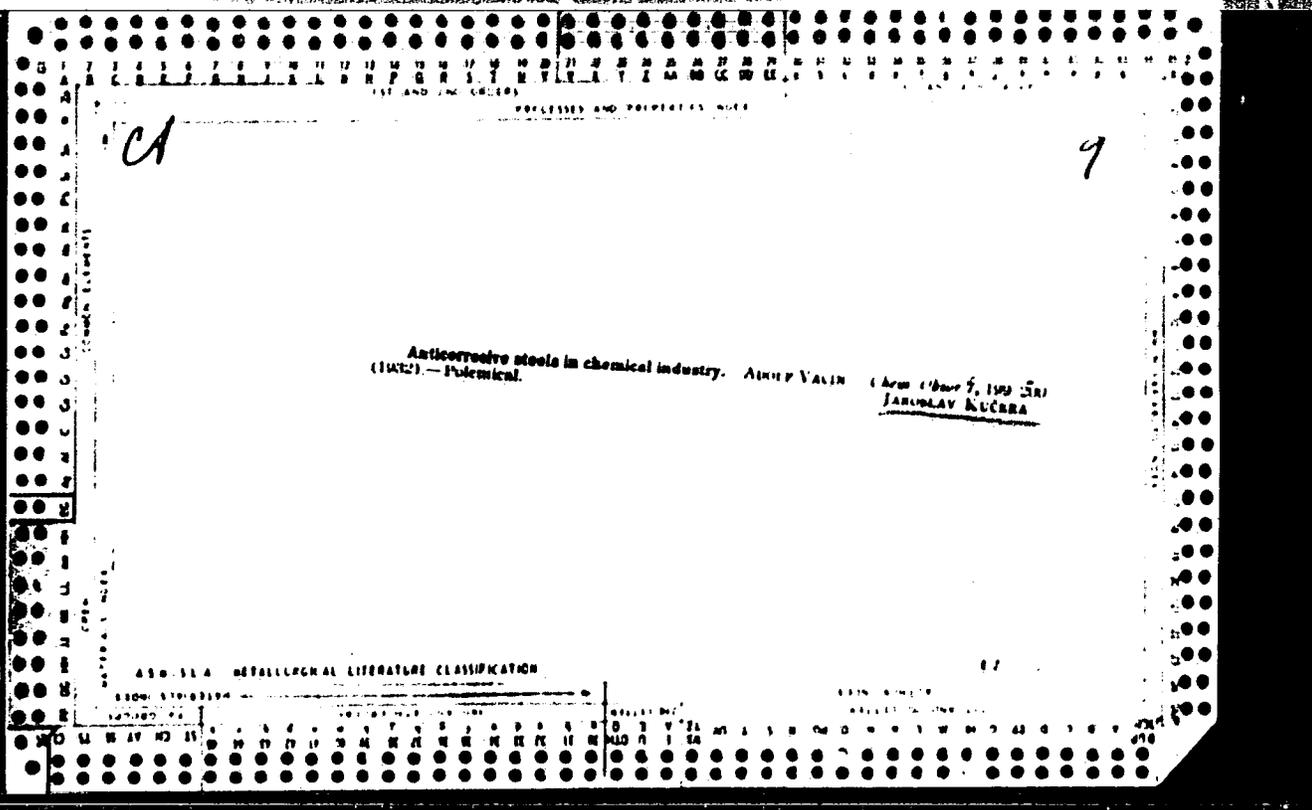
ABSTRACT: The article describes the practical execution of the method and deals with modulation, on the one hand, by mere inversion and, on the other, with simultaneous elimination of part of the coils, or with compensation of their magnetic potential difference. The concluding part contains a diagram illustrating the relative magnitudes of harmonic magnetic potential differences in various arrangements of the winding with different pole numbers. This paper was presented by Engineer B. Riha. Orig. art. has: 10 figures, 6 formulas and 2 tables. [Based on author's Eng. abst.] [JPRS: 36,811]

SUB CODE: 09, 20 / SUBM DATE: 11May65 / ORIG REF: 001 / OTH REF: 008

Card 1/1 LC

UDC: 621.313.333.001

0918 1035 *



3. A

Transformers

1.1
1

631 1142 631 1195
1966. Progress in transformer construction. J
Elektr. Strojarni. (Pr., 39, 8 '8 (No. 12)
31. 6 (No. 3, 1950) in Czech.

The author reviews in detail the progress achieved during the last decade in various countries including Czechoslovakia in design, quality of materials and construction of transformers. The magnetic circuit, the windings and the cooling of power transformers are dealt with in the first part of the paper. The second part is devoted to design of v.h.v. transformers. The section dealing with voltage regulation (tap-changing) includes information mainly on Czech designs, but some circuits used by French (Sovmienne) and German (Koch and Storz) manufacturers are also mentioned. The last part of the paper deals with short-circuit and surge phenomena, including surge generators, describing also the circuit of a Czech-built surge generator.

Mar 57

SA

B 64

681.313.1

435. Rotating co-ordinate systems in the theory of electric machines represented by tensor calculus. J. Kucera. Elektrotech. Obz., 39, 235-48 (July, 1950) In Czech.

An introduction to the tensor treatment of electrical

machinery with a discussion of the most suitable method of representation offered by synthetic geometry. There is the choice between holonomic and anholonomic spaces. The number of dimensions necessary is determined by the number of windings and phases of the machine considered. Spaces with rotating co-ordinate systems involve the question of the metrics contained in them, and it is found that they are holonomic of the Riemann type. This enables the Lagrange equations to be used. The next

step is to translate the symbolism and relationships of affinity into their equivalents in the theory of electric machines. Impedance and admittance matrices are derived and the current equations given for the steady and transient state. The product of the affine symbol and the relative rotor speed with respect to the stator is an invariant against the transformations, which enables simple transformations of the impedance and admittance tensors to be used. A salient-pole alternator is treated as an example.

B. P. KRAUS

ASO. 51A METALLURGICAL LITERATURE CLASSIFICATION

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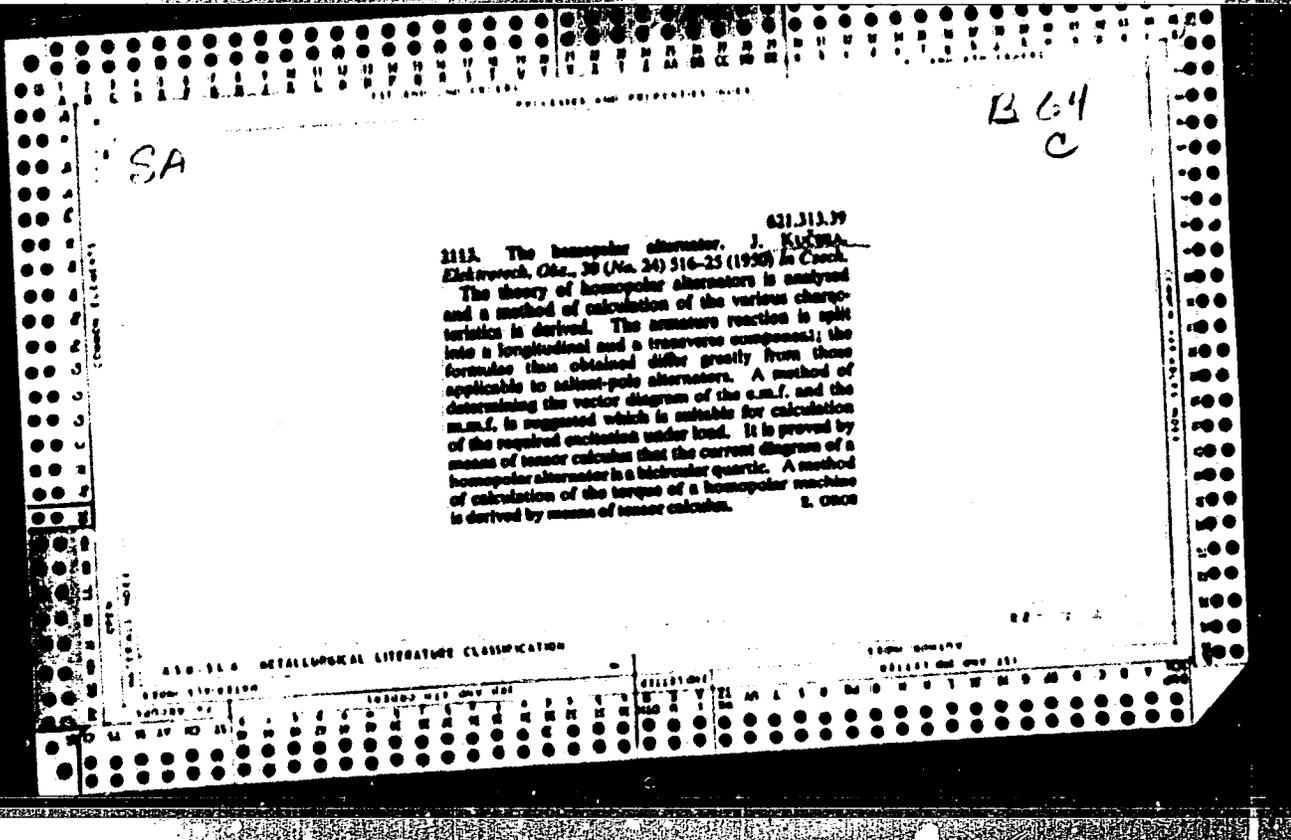
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KUCERA, JAROSLAV

Kucera, Jaroslav, Vinuti stejnosmernych stroju. Jaroslav Kucera (a) Josef Hapl.
(Vyd. 1.) Praha Statni pedagogicke nakl., 1953. 247p. (Ucebin texty vysokych skol)
(Winding direct-current machines, bibl. diagrs.)

SO: Monthly List Of East European Accessions, LC. Vol. 3, No. 5, May 1954 Unclassified

KUCERA, JAROSLAV.

Transformatory. Jaroslav Kucera [a] Josef Hapl. [Vyd. 1.] Praha, Statni pedagogicke nakl., 1953. 296 p. (Ucební texty vysokých škol) [Transformers. illus.; diagrs.]

SO: Monthly List of East European Accessions, Vol.3, No.3, Library of Congress, March 1954, Uncl.

KUCERA, J

"Axial magnetic forces acting on the rotors of induction motors." Trans. AIEE, Vol. 72, 1953, Abstract: El. Engg., 1953, No. 7, p. 599. The Czech abstractor states that Prof J. Kucera dealt with the same subject in two papers, giving the locations of these papers.

Elektrotechnický Obzor (Electrical Engineering Review, Czechoslovakia) Vol. 42, No. 12, Dec. 1953, pp. 665-718. (Air, AA, London, IR-594-54, 22 Mar 54, Unclassified)

KUCERA, J.

Geometric spaces in electric engineering. (To be contd.) p. 5.
(ELEKTROTECHNICKY OBZOR., Vol. 42, no. 1, Jan. 1953, Czechoslovakia)

SO: Monthly List of East European Accessions, Vol 2 #8, Library of Congress,
August 1953, Uncl.

KUCERA, J.

"Geometric Spaces in Electricity." p. 97.
(Elektrotechnický Obsah, Vol.42, No.2, Feb. 1953, Praha.)

Vol. 3, No. 3.

SO: Monthly List of East European Accessions, Library of Congress, March 1954, Uncl.

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2116. TENSOR THEORY OF THE TRANSFORMER. 621.314.2.011
J. Kuders.

Elektrötech. Otvor., Vol. 45, No. 1, 1-14 (1956). In Czech.
The tensor theory of transformers is based on the metric
character of the geometry of the spaces related to electrical
machines. The number of dimensions of the spaces is given by
the number of phases. A method is given for obtaining the
minimum number of dimensions for practical calculations,
i.e. 3-ph. transformers to 2-ph., in the case of perfectly sym-
metrical systems to 1-ph. Electrical Research Association

①

AT

KUCERA, J.

The equipment of the E. H. T. laboratory of the electrical power institute at
Bechovice. p. 37.

(Czechoslovakia Heavy Industry. No. 5, 1957. Prague, Czechoslovakia)

SO: Monthly List of East European Accessions (MEAL) LC, Vol. 6, no. 10, October 1957. Uncl.

KUCERA, J.

A few contributions to the development of electrical engineering in the field of high-voltage currents from the beginning of this century. Tr. from the French. p. 99.
(Elektrotechnicky Obzor, Vol. 46, no. 2, February 1957. Praha, Czechoslovakia)

SO: Monthly List of East European Accessions. (EEAL) LC. Vol. 6, No. 6,
June 1957. Uncl.

KUCERA, J.

Short-circuit currents in turbogenerators.

p. 131 (Electrotechnika. Vol. 50, no. 4, Apr. 1957, Budapest, Hungary)

Monthly Index of East European Accessions (EEAI) 10. Vol. 7, no. 2,
February 1958

8(5)

PHASE I BOOK EXPLOITATION

CZECH/2487

Kučera, Jaroslav, Doctor, Engineer, Professor, and Josef Hapl, Engineer, Docent

Vinutí elektrických strojů točivých (Winding of Electric Rotating Machines) Prague, Nakladatelství Československé Akademie Věd, 1959. 899 p. Errata slip inserted. 2,250 copies printed.

Scientific Ed.: Bedřich Heller, Doctor, Engineer, Corresponding Member, Czechoslovak Academy of Sciences, Laureate of the State Prize; Tech. Ed.: Jan Rejdal.

PURPOSE: This book is intended for specialists in electrical machines. With the omission of certain parts it may also serve as a university textbook.

COVERAGE: This is the first comprehensive book on windings of electrical machines to be published in Czechoslovakia since the work of K. Novák, Vinutí inductů strojů dynamoelektrických, published in 1926. The book is a result of several years work and was

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Winding of Electric Rotating Machines

CZECH/2487

originally presented in a shorter mimeographed edition in the form of lectures by the authors at the České Vysoké Učení Technické (Czech Higher Technical School) in Prague. In this book the authors describe in detail the arrangements of several individual types of windings with numerous illustrations. The part dealing with armature windings of d-c machines includes detailed tables with data on various kinds of symmetrical windings. The authors thank the following persons who participated in the work: V. Milinovski, Engineer (Deceased); O. Stoklasa, from ČVUT; and J. Lorenc, Engineer. The authors also thank D. Mayer, Engineer, Assistant at the Higher School of Electrical Engineering at Pízen, who prepared the chapter on short-circuit forces in the windings; Doctor J. Stěpín, Engineer; V. Kameník, Engineer, who helped in preparing the manuscript; and Doctor B. Heller, chief editor. The authors thank the following domestic and non-Czechoslovakian firms for technical data and photographs: Czechoslovak: ČKD Stalingrad, Praha-Vysočany, ZVIL (former Škoda Works), Pízeň-Doudlevec, MEZ (Moravské elektrotechnické závody) in Frenštát, Vsetín, and Brno; foreign firms: AEG in Berlin, Fabrique Suisse d'Isolants in Bretonbac, Maschinenfabrik Oerlikon in Zürich, Usines Dielectriques in Delle, and Sachsenwerk in Dresden. There

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are 13 references: 6 Czech, 5 German, 1 English, and 1 French.

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AVAILABLE: Library of Congress

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JP/bg
1-18-60

KUCERA, J.

Laboratory of the Research Institute for High-Voltage Electrical
Engineering in Bechovice. p.357

ELETROTECHNICKY OBZOR. (Ministerstvo tezkého strojírenství a Československé
vědecká technická společnost pro elektrotechniku při Československé akademii
věd) Praha, Czechoslovakia
Vol.48, no.7, July 1959

Monthly List of East European Accessions (EEAI) LC, Vol.8, no.11
Nov. 1959
Uncl.

S/105/61/000/005/003/005
B116/B221

AUTHOR:

KUCERA, J.

~~Kuchera~~ Yaroslav, Candidate of Technical Sciences

TITLE:

Work of the laboratory of supervoltage of the Scientific
Research Institute of Power Engineering at Bekhovitse

PERIODICAL:

Elektrichestvo, no. 5, 1961, 78-80

TEXT: This paper gives a summary of the work done by the laboratory of supervoltage at Bekhovitse. After 1945, a unit grid system of 220 kv was constructed and taken into operation in Czechoslovakia. In this work, the first laboratory of supervoltage at Praha-Goleshovitse took an important part. The increasing demand of electric power necessitated a rise of the grid-system voltage to 400 kv. For this purpose, a well equipped experimental laboratory was built in the suburb of Bekhovitse near Praha (1950 to 1954). It is a branch institute of the Scientific Research Institute of Power Engineering. During the years 1954 and 1958, the laboratory has carried out experiments and tests of electric products. As source of the a.c. voltage serves a step voltage transformer with 2.25 Mv and 2.25 Mva, made by the firm of Transformatoren und Röntgenwerke,

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Work of the laboratory of ...

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Dresden. This 3-step transformer with 750 kv at every step and oil cooling is supplied by a 3-phase synchronous generator with 6 kv and 1300 kva. A generator with the same rated parameter serves as voltage source (200 cps). As source of the impulse voltage serves a generator with 3.2 Mv (rated voltage) and 76 kw with 16 stages of 200 kv and 0.237 μ F each, which was built by the firm of Micafil, Switzerland. The d.c. voltage is produced by a peak rectifier with pivot contact. For the direct measurement of a.c. and impulse voltage a spherical gap with a sphere diameter of 1500 mm is used. The working rooms of the laboratory consist of 2 rooms of 12 by 30 m. The most important scientific research work is included in the state plan of the Czechoslovakian Academy of Sciences. The themes and the working procedures are fixed by the Scientific Council of the laboratory. The work being done at present is subdivided into 3 groups: theoretical - applied - and work for official institutes and enterprises which, at present is the most extensive. Together with the Czechoslovak Academy of Sciences, a method was worked out to control the electric echo of dividers by the spherical gap under pressure, and tests were made to measure the impulse voltage by a flux meter. At present the laboratory is working to measure the

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Work of the laboratory of ...

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diffusions of bar spark gaps, which work was organized by the Commission no. 8 of the CIGRE. In order to investigate artificial rain a device was constructed to produce standardized artificial rain on a large area. This may be used for investigations of up to 400 kv. Furthermore, methods for measuring and applying ionization are being studied. Wet and dry spark over voltages of long suspension-insulator chains are investigated, up to 1.5 Mv with a.c. voltages and up to 2.5 Mv with impulse voltages. The results are used for the standardization of insulators. At the same time, durability tests of suspension insulator chains are carried out, in order to fix the maximum voltage to be permitted. Corona losses in split lines and the resulting radio interferences are tested on the experimental 400-kv line, the voltage of which is increased up to 525 kv during the tests. These results are used for projecting the 220 and 400-kv lines. During the last years, the breakdown strength of power transformers was studied under atmospheric supervoltages. The members of the laboratory crew cover almost all fields of power voltage and supervoltage engineering, take part in the work of standardization, and teach also in schools of higher education. Since 1956, they also take part in the meetings of the International Electrotechnical Commission,

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S/105/61/000/005/003/005
B116/B221

Work of the laboratory of ...

also in different symposiums and commissions, since 1960 also in the work of CIGRE. The Scientific Research Plan of the laboratory will be continued to be adjusted to the plan of the Czechoslovakian Academy of Sciences and the institutes concerned with supervoltage engineering (Scientific Research Institute for Electrotechnical Ceramics, Scientific Institute for Cable and Insulation Material etc.). Furthermore, the laboratory is collaborating with the scientific institutions of the USSR, e.g. in the field of investigations on the insulation of long suspension chains, the radio interferences caused by the 400 kv lines, etc. There are 3 figures and 20 Soviet-bloc references. ✓

SUBMITTED: October 18, 1960

Card 4/4

PADERTA, Bedrich, inz., kandidat technických ved; KUCERA, Jaroslav, inz.,
kandidat technických ved.

Problems in surge tests of large transformers. El tech obzor
50 no.11:634-638 N '61.

1. Ustav pro elektrotechniku, Ceskoslovenska akademie ved (for
Paderta). 2. Laborator velmi vysokého napeti Energetického
ustavu v Prze (for Kucera).

KUCERA, Jaroslav, prof., inz., dr., doktor technických ved.

"Tensor analysis of electric circuits and machines" by L.V.Bewley.
Reviewed by Jaroslav Kucera. El tech obzor 50 no.11:660 N '61.

KUCERA, Jaroslav, prof., inz., dr., doktor technických ved HAPL Jozef,
doc., inz.

Accumulation of electric power in water-power electric plants.
El tech obzor 50 no.12:672-676 D '61.

KUCERA, Jaroslav, inz., C.Sc.

Analysis of voltage conditions in cascade-transformers.

El tech cas 13 no.5:289-298 '62.

1. Vedecky pracovník, Vyzkumny ustav energeticky, Bechovice.

KUCERA, J., prof., inz., dr.; HAPL, J., doc., inz.

Magneto-hydrodynamic production of electric current. El tech
obzor 51 no.1:39-41 Ja '62.

KUCERA, J., prof., inz., dr.; HAPL, J., doc., inz.

Motors with an impressed winding. El tech obzor 51
no.2:87-88. F '62.

KUCERA, Jaroslav, inz., kandidat technických ved

Calculation of series capacitance of distribution transformers.
El tech obsor 51 no.3:105-108 Mr '62.

1. Laborator velmi vysokeho ^{tenze} napeti, Energeticky ustav,
Bechovice.

KUCERA, Jaroslav, prof., inz., dr., doktor technických ved; HAPL, Josef, doc.,
inz.; KOTAL, Miroslav, doc., inz., kandidát technických ved

Some problems of construction of maximum output turboalternators.
E1 tech obzor 51 no.4:151-156 Ap '62.

KUCHERA, Yaroslav[Kucera, Jaroslav]; GAFL, Yozef[Hapl, Josef]; GELLER, Bedrzikh [Heller, Bedrich], akademik, laureat gosudarstvennoy premii, inzh. doktor, nauchnyy red.; KALININ, Ye.M., inzh., red.

[Windings of rotary machines] Obmotki elektricheskikh vrashchatel'nykh mashin. Prague, Izd-vo Chekhoslovatskoi akad. nauk, 1963. 981 p. (MIRA 16:4)

(Electric machinery--Windings)

KUCERA, Jaroslav, inz., C.Sc.

Trouble incidence in transformers protected by valve lightning arresters. Energetika Cz 13 no.2:65-68 F '63.

1. Laborator velmi napeti, Energeticky ustav, Bechovice.

KUCERA, Jaroslav, inz.

Quasi-stationary distribution of tension on the transformer windings
during voltage surge. El tech obzor 52 no.2:100-101 F '63.

KUCERA Janoš, inž., kandidát technických ved

Simplified calculation of the input coil surge stress in
transformers with coil winding. El tech obzor 52 no.4:
167-174 Ap '63.

1. Energetický ústav, Bechovice.

KUCERA, Jaroslav, prof., inz. dr., doktor technických ved.

Vibration of the stator yoke in two-pole turboalternators.
El. tech. obzor 52 no. 8:418-423 Ag '63.

ACCESSION NR: AP4022220

Z/0041/64/000/002/0140/0159

AUTHOR: Dunder, Jiri (Dunder, Yirzhi) (Engineer, Candidate of technical sciences);
Kucera, Jaroslav (Kuchera, Yaroslav) (Engineer)

TITLE: Investigation of turbulence in models of combustion chambers

SOURCE: Strojnický časopis, no. 2, 1964, 140-159

TOPIC TAGS: combustion, combustion chamber, turbulence, fuel, pulverized fuel,
fuel combustion

ABSTRACT: Measurements were made of the turbulence intensity with isothermal flow in aerodynamic models of a laboratory cylindrical furnace 200 mm. in diameter and a vertical cyclone furnace 3000 mm. in diameter in order to determine the effect of turbulence on the intensity of fuel combustion. In the absence of a suitable method in the literature for measuring turbulence in furnaces it was not possible to make a quantitative comparison of the laboratory results with data for industrial furnaces. However, since the results obtained in laboratory burners indicated that combustion does not undergo substantial change in the course of turbulence intensity, it is assumed that there is no qualitative

Card 1/2

ACCESSION NR: AP4022220

change in furnaces using pulverised fuel. Orig. art. has: 6 formulas, 15 figures, and 2 tables.

ASSOCIATION: Ustav pro vyzkum stroju CSAV, Prague (Institute for Machinery Research, CSAV).

SUBMITTED: 05Mar63

DATE ACQ: 08Apr64

ENCL: 00

SUB CODE: IE

NO REF SOV: 009

OTHER: 011

Card 2/2

STENCZEL, Juraj, inz.; KUCERA, Jaroslav, inz.

Some experience in using sprayed concrete in the construction of mining supports. Rudy 12 no.5:154-159 My '64.

1. Jachymovske doly, 9. kveten National Enterprise, Pribram.

KUCERA, Jaroslav, inz. CSc.; VOKALEK, Jaroslav, inz.

Dielectric strength of external insulation in case of
switching overvoltage. El tech obzor 53 no.4:196-201
Ap '64.

1. Research Institute of Power Engineering, Prague.

KUCERA, Jaroslav, inz. CSc.

Surge phenomena on the grounding of surge generators. E1
tech cas 15 no. 6:358-374 '64.

1. Extra High Voltage Laboratory, Research Institute
of Power Engineering, Bechovice near Prague.

RUCERA, Jaroslav, prof. ing. a. s. 1911

(calculating circle in the electrical control systems of electric
machines. 40 tech obrat 5) no. 70773-377) 3113L

L 20933-66

ACC NR: AP6011C56

SOURCE CODE: CZ/0017/65/054/003/0105/0112

AUTHOR: Kucera, Jaroslav (Professor; Doctor; Engineer; Doctor of sciences)

ORG: none

TITLE: Speed control of an asynchronous motor by phase shifting

SOURCE: Elektrotechnicky obzor, v. 54, no. 3, 1965, 105-112

TOPIC TAGS: electric motor, phase shift

ABSTRACT: A review is presented of the theory on which the principle of speed control by phase shifting (Williams et al., Proceedings IEE, May 1960) is based. The application of the principle to change-over windings is also demonstrated. This paper was presented by Engineer B. Riha. Orig. art. has: 17 figures and 25 formulas. /JPRS/

SUB CODE: 09 / SUBM DATE: 14Mar64 / ORIG REF: 001 / OTH REF: 005

48
B

Card 1/1 ULK

UDC: 621.313.333-5: 621.316.718

KUCERA, Jaroslav, inz. CSc.; VOKALEK, Jaroslav, inz.

Distribution curves for flashover probability on external insulation by switching surges. Acta techn Cz 10 no.1:114-120 '65.

1. Research Institute of Power Engineering, Brno. Submitted July 11, 1964.

ACC NR: AP6011072 SOURCE CODE: CZ/0017/65/054/004/0155/0159

AUTHOR: Kucera, Jaroslav (Engineer; Candidate of sciences)

ORG: Laboratory of Very High Voltages, Power Research Institute, Brno
(Laborator vvn Vyzkumneho ustavu energetickeho)

31
B

TITLE: Methods of measurement of high alternating voltages during tests

SOURCE: Elektrotechnicky obzor, v. 54, no. 4, 1965, 155-159

TOPIC TAGS: alternating voltage, voltage divider, electric impedance, electric capacitance

ABSTRACT: The paper analyzes the errors of voltage dividers and measuring impedances caused by their capacitances to the ground. Appropriate circuits for peak value measurements in the low voltage arm of dividers are given and formulas for accuracy are derived, on the basis of which circuit elements are to be selected. This paper was presented by Engineer A. Hon, Candidate of sciences. Orig. art. has: 7 figures and 18 formulas. [JPRS]

SUB CODE: 09 / SUEM DATE: 18Dec64 / ORIG REF: 004 / OTH REF: 006

Card 1/1

UDG: 621.317.32

KUDERA, Michail

Elaboration of working drawings of castings. Governmental order
no. J.103-108 Mr '65.

1. Zavod V.I. Lenina National Enterprise, Leningrad

KUCERA, Jindrich

Instruction for molding castings. Slazarenstvi 13 no.4:152-
158 Ap '65.

1. Zavody V.I.Lenina National Enterprise, Plzen.

XUCERA, Jiri

Technical news and interesting features in the aircraft
industry. Zpravodaj VZLU no.1:56 '63.

KUCERA, Jiri

The new in aeronautics. Zpravodaj VZ10 no.6116 '65.

KUCERA, Jiri

The new in aeronautical technology. Zpravodaj VZLU no.6:
44 '61.

KUCERA, Jiri

Technical information on aeronautics. Zpravodaj VZLU
no.2:94 '63.

KUCERA, Jiri

Technical news and items of interest in aeronautics. Zpravodaj
VZLU no.5:30 '62.

KUCERA, Jiri

Technical news from aeronautics. Zpravodaj VZLU no.1:60 '63.

KUCERA, Jiri

"Flight instruments" by Arno Fischer. Reviewed by Jiri
Kucera. Letecký obzor 8 no. 4: 124 Ap '64.

KUCERA, Jiri

The new in aeronautical engineering. Zpravodaj VZAV 2:20,
34,40 '64.

KUCERA, Jiri

"Plasticity of metals. The mechanical behavior and the changes
' structure of metals under plastic deformation" by Max Kurrein.
Reviewed by Jiri Kucera. Lstecky obzor 8 no.9:284 S '64.

"Men and aircraft" by Vaclav Nemecek. Reviewed by Jiri Kucera.
Ibid.:284

"Thermodynamics for engineers" by A.C.Walshaw. Reviewed by
Jiri Kucera. Ibid.:284

KUCERA, Jiri

Technical information and news of interest in aeronautics.
Zpravodaj VZLU 3:10, 18, 25, 26, 36, 40 '64.

KUCERA, Jiri

The new of interest in aeronautics. Zpravodaj VZLU no.4:
22,30,49,50,54 '64.

KUCEFA, Jiri

"Aerodynam'ca" by N.Ja.Fabrikant [Fabrikant, N.Ya]. Reviewed by Jiri Kucera. Letecky obzor 9 no.2:52 F '65.

"Rockets and artificial satellites in meteorology." Reviewed by Jiri Kucera. Ibid.:52

KUCERA, Jiri

"Aircraft modeling" by O.K.Gajevskij [Gayevskiy, O.K.] Reviewed by Jiri Kucera. Letecky obzor 9 no.4:108 Ap '65.

"Helicopters" by E.I.Ruzickij [Ruzhitskiy, Ye. I.] Reviewed by Jiri Kucera. Ibid.:108

"Practical solution of torsional vibration problems" by W.K.Wilson. Reviewed by Jiri Kucera. Ibid.:108

KUCERA, Jiri, MUDr.; DITTRICH, Zdenek, MUDr.

Experience with ACTH therapy. Vnitr. lek., Brno I no.1:
22-26 Jan 55.

1. Z I. mestske nemocnice v Brne-vnitřni oddeleni prednosta primar MUDr. et RNDr. Emil Weinberger, Brno 12, Vackova 90.
(ACTH, therapeutic use
alone & with cortisone, evaluation.)
(CORTISONE, ther. use
alone & with ACTH, evaluation.)

KUCERA, Jirí, MUDr.

Therapy of rheumatic fever.
Vnitr. lek., Brno 1 no.4:306-308 Apr 55.

1. Z I. Mestské nemocnice v Brně, Vnitr. odd., prim. MUDr dt RMDr
Mail Weinberger Z II. Mestské nemocnice v Brně, Vnitr. odd., prim.
Doc. MUDr Jan Horak
Brno 12, Vačkova 90.

(RHEUMATIC FEVER, therapy
sodium salicylates with procaine)
(SALICYLATES, ther. use
sodium salicylates in rheum. fever, with procaine)
(PROCAINE, ther. use
rheum. fever., with sodium salicylates)

KUCERA, ~~DITTRICH~~
JIRI.

CZECHOSLOVAKIA/Pharmacology. Pharmacognosy. Toxicology -
Hormone Preparations.

T-7

Abs Jour : Referat Zhur - Biologiya, No 16, 1957, 71846
KUCERA, JIRI;
Author : Kucera, Dittrich, ZDENKA
Inst :
Title : Our Experiences with ACTH Treatment. 2-nd Report.
Orig Pub : Vnitřni Lekarství, 1956, 2, No 4, 340-347
Abstract : No abstract.

Card 1/1

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EXCERPTA MEDICA Sec. 6 Vol. 11/10 Oct. 57
KUČERA J.

6295. KUČERA J. and WIEDERMANN D. Vnitřního Odd., II. Městské Nem. a Úst.
Exp. Pathol. MU, Brno. * Vleklá hepatitis s krajní hyperproteinémií a s pře-
chodným obrazem elektroforeticky homogenní hyper- γ -globulinémie Chron-
ic hepatitis with hyperproteinaemia and transitory pic-
ture of electrophoretically homogenous hyper- γ -globulin-

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CONT.

aemia VNITĚ, LÉK. 1957, 3/4 (299-304) Graphs 2 Tables 1 Illus. 2
The picture defined in the title was seen in a case of chronic hepatic dystrophy. After treatment with choline, methionine and liver extracts there was a considerable improvement in both electrophoretic and clinical respects. The originally homogeneous γ -globulins gradually acquired a heterogeneous character, while the total serum protein fell and the clinical condition improved.

KUČERA, Jiří, MD

Czechoslovakia

Internal Medicine Ward of the Polyclinic -- Brno-Králově
Poli (Vnitřní oddělení polikliniky -- Brno-Králově Poli

Prague, Vnitřní lékařství, No IX-2, 1963, pp 154-157

"Hypolivat for the Treatment of Essential Hypertension
in Ambulatory Practice."

BARDOSOVA, G.; KUCERA, J.

Staphylococcal pneumonia in children. *Pediat. listy*, Praha 9 no.5:
258-261 Sept-Oct 54.

1. Z detskej kliniky LFŠU, Kosice, prednosta doc. dr. F.Denant
(PNEUMONIA, bacteriology
Micrococcus pyogenes in child)
(MICROCOCCAL INFECTIONS
pneumonia, in inf. & child)

~~KUCERA, Jiri, Dr.~~

Embryopathies. Cesk. pediat. 11 no.6:401-406 June 56.

1. UPMD, reditel prof. Trapl, vedouci ped. sektoru doc. Kubat.
(ABNORMALITIES,
review (Cs))

KUCERA, J.

Prenatal ontogenesis and its disorders. Cesk.fysiol. 9 no.2:108-121
Mr '60.

1. Ustav pro peci o matku a dite, Praha.
(FETUS physiol)

KUCERA, Jiri

Prevention of disorders of intrauterine development. (Contribution to the work of prenatal care centers). Cesk.pediat. 15 no.3: 242-247 Mr '60.

1. Ustav pro peči o matku a dite v Praze-Podoli, reditel doc.dr. M. Vojta. Pediatricky sektor UPMD, prednosta primar MUDr. K. Polacek.
(PRENATAL CARE)